

Report of the 3rd Sweetpotato Support Platform Meeting for Southern Africa

Maputo, 23-24 June 2011



The 3rd meeting of the Sweetpotato Support Platform for Southern Africa took place in Maputo, Mozambique from 23 to 24 June 2011. As usual, the main objective of the meeting was to share the last experiences on the work done on the entire sweetpotato value chain in the region. Apart from scientists from CIP and local National Research Institutes of Mozambique, Zambia, Malawi, and South Africa, the platform meeting brought together all actors involved in the production, dissemination, marketing and commercialization of sweetpotato such as members of local associations of farmers, individual farmers, commercial farmer, representatives of the NGOs (Word Vision, ADRA, HKI, ANSA, LWF), and considerable personalities from the extension services.

In order to cover as much as possible the last events and developments in sweetpotatoes value chain in the region, the meeting was divided in three parts:

1. The field day, to observe and share information on the seed systems based on the experiences of Mozambique
2. The classroom presentations, focused on the seed systems and marketing related activities conducted in the region,
3. Demonstrations, focused on the vine multiplication methods (triple S method), palatability testing of the new 15 released varieties, processing of Juice, and finally the launching of the new sweetpotato manual for Mozambique.

The complete agenda of the two days meeting is summarized in Table 1.

Table 1. Agenda of the 3rd Sweetpotato Support Platform Meeting for Southern Africa, Maputo, 23-24 June 2011

Time	Activity	Responsible
22/06/11		
	Arrival of participants	Amélia Ruco
23/12/11: Seed Systems Day		
7:00 –	Departure to Umbeluzi	
8:00	Registration	Amélia Ruco
8:30	Welcome Remarks	Maria Andrade/ Calisto Bias/ Paciência Banze
9:00- 12:00	Visit to Sweetpotato Field in Walate, De-centralized Vine Multiplication plot, a Commercial Farm (LOSANE), and visit one on-farm trial at Belo Horizonte (Associação Kape-Kape)	Maria Andrade, José Ricardo and Bernardino Munhaua
13:00 – 14:30	Lunch in Maputo	
14:30 – 15:00	Pros and Cons of Different Vine Dissemination Strategies	Jan Low
15:00 – 15:20	The Decentralized Vine Multiplier	NGO partner on Rooting out

	experience to date in Malawi	Hunger Project
15:20 – 15:40	The DVM experience in Mozambique	Abdul Naico & Jan Low
15:40 - 16:00	The Formal Seed System in South Africa: Costs and Benefits	Sidwell Tidja
16:00 - 16:15	Discussion	Jan Low
16:15 – 17:15	Demonstration of the Triple S Method	Maria Andrade
17:15 – 17:30	Wrap-up	
24/06/11: Information Exchange & Launching of New Initiatives		
Venue: IIAM PIAT video conference room		
08:30 – 09:00	Integrating Orange in Zambia & Investment in Improved Tissue Culture	Martin Chiona
9:00 - 9:20	Mitigating Disaster & Fighting VAD with New, Drought Tolerant OFSP	Maria Andrade
09:20 – 10:00	Health Break and Media Event & Launch of New Sweetpotato Production Manual	Amélia Ruco
10:00 – 10:30	Demonstration of Juice Making	Adília Viegas & João Junior
10:30 – 11:00	The Economics of Golden Bread & the Challenges of Building a Value Chain	Jan Low
11:00 – 11:30	Session discussion	Chair – Albertina Alage
11:30 – 12:00	Evaluation of Session & Closing remarks	Chair – Carvalho Ecole
12.00 – 13:30	Lunch	Amélia Ruco
13:30	Depart to Padaria Aliança	
14:00 – 16:30	Bakery demonstration of bread processing	Padaria Aliança

Day 1

The welcome remarks

The Day 1 started with the field day conducted in the district of Boane where most of CIP seed system activities in Maputo are located. The first activities of the day were the welcomes remarks from the different personalities representing the institutions attending the meeting. This phase started with the speech of the chairperson/facilitator (Anabela Manhiça from IIAM Technology Transfer Department) who briefly reminded the presents about the objectives of the meeting and the platform in general, and presented the program/agenda of the day. The following speech was from Eng. Paciência Banze, the head of Umbeluzi Research Station, who welcomed everybody to Umbeluzi and in summary, emphasized the commitment of the station on collaboration with sweetpotato program in

Mozambique and the region. Maria Andrade was the next to welcome the participants and reminded that these meetings are definitely very important to exchange our experiences and knowledge on sweetpotatoes.

The IIAM (Mozambique National Agrarian Research Institute) was represented by Dr Manuel Amane and Carvalho Ecolé, the head and deputy of the Department of Crop Production, who were in line with others representatives by emphasizing the importance of this platform for the development of the crop to reach as much as possible the consumers. The last intervention in this phase was from Dr Jan Low who in summary expressed her desire to see all stakeholders comparing and exchanging experiences on their local seed systems approaches to really boost the distribution and dissemination of cleaned planting material in the region. The list of the participants of the two days meeting is presented in Table 2.

The field visits

The first place visited was the Walate multiplication plot (Figure 1), where the new 15 pre-released varieties have been multiplied since the beginning of the year. After a quick explanation by Maria Andrade of what we have in the field, the participants were invited to tour the field and observe the characteristics of the varieties (leaves and roots). Most of the participants tested the fresh roots and were very impressed by the variability of the varieties in terms of the color and dry matter content of the roots.



Figure 1. Participants during the visit of Walate multiplication plot observing the vines and roots of the 15 new released varieties

After a quick coffee break, the participants headed to second field, the decentralized vine multiplication plot of Mr. Castigo located at Circulo Gimo in Umbelúzi established two months ago. This was the place where most of the discussion of the field visit took place, as the decentralized vine multiplication (DVM), was of central interest of everyone in this visit. After the introduction of Mr. Castigo, members of CIP explained the concept of DVM, in particular the criteria to

choose the farmers to be a successful DVM, and also the most important challenges up to date in establishing the DVMs in Mozambique. Critical aspects such as how to deal with local authorities, gender issue, the process of cleaning the varieties, the process of allocating the varieties to DVM, the monitoring and evaluation, the sustainability of the system among others were of debate for nearly 1 hour. Experiences on how and the frequency of irrigation of the fields were shared by other DVMs present in the event, and the most important outcome here was the advice to Mr. Castigo that he can reduce the numbers of irrigation at this stage from two to one as the weather is more favorable.



Figure 2. Participants discussing on the DVM and related issues at Mr Castigo multiplication plot



Also it was an occasion for other DVMs to share their experience on how to produce the vines, and Mrs. Julieta, one of the DVM from Umbeluzi mentioned that from her experience from last 2009/10 cropping season, she was able to sell all the vines and part of the roots. She made a profit of 8,540 MT (\$300) exploring only 1500 m², and she was able to buy a new TV with her profit. At the end of the visit Mr. Castigo was invited to give his thoughts about the activity up to date, and he was clear in saying that he appreciated a lot to be chosen to be part of the program, as he can easily help a lot of people in the village by selling the clean planting material at very competitive price.

The third place visited was the LOSANE farm, which is the commercial farm testing 5 of the new pre-released varieties (Bela, Irene, Sumaia, Erica, and Amelia) at a commercial level. The participants (Figure 3) were explained the objective of working with a commercial farmer to produce both vines and roots, and most important, this approach is different from the DVM, as the farmer will have to pay all inputs used to produce the roots and vines.

Figure 3. Participants visiting the Losane farmer



In fact, CIP signed a contract with the company to recover all cost related with the supply of the initial planting material. Apart from specialize the farmer in selling the vines and fresh roots to the market, this farm will serve as an entry point to explore other segments in the market such the puree processing and animal feeding.

The last place reserved to the field tour was the visit of the on-farm trial located at Belo horizonte (Figure 4). The trial belongs to the farmer association Kape-Kape, who actually used their area of 20*15 m to establish 4 on-farm trials. After the welcoming speech by the president of the association, Mr. Filipe Almeida Tembe, and the introduction of the members of the association present in the occasion (5 women and 1 man), the participants were invited to observe the field.



Figure 4: View of part of the members of the association Kape-Kape and platform members visiting the on-farm trial

In general, the trials were managed, and according to the members of the association, all 35 members have been enthusiastically participating in the trials and they already started to learn something from the characteristics of the 8 varieties under the trial. When asked about the consumption of the leaves, the members were able to discriminate the varieties they consider the most important in terms of leave consumption. The members of this association were intensively trained on farm field school, and according to them, they have been using and applying the knowledge from this experience to sweetpotato. The visit to this place ended by the invitation from the association to CIP in order to conduct a field day in the association, and the promise was that this day will take place during the harvesting day of the on-farm trial.

The presentations

The second part of the day was dedicated to the presentations on the different experiences on the seed system in Mozambique, Malawi, South Africa, and Zambia. The first presentation was on the “Pros and Cons of Different Vine Dissemination

Strategies” by Dr Jan Low. The focus here was on the first experiences on the introduction of the de-centralized vine multiplication, the use of the vine to vine multiplications systems (challenges to embark on rapid versus conventional multiplication) and the pros and cons of using the root based multiplication method called triple S.

Comments and discussion:

Abertina Alage (Extension Services): One of the challenges to introduce these new vine dissemination strategies was the link/partnership with the public extension services, and the question was up to what point the extension services were used to mitigate some of the constrains faced during the implementation of the project in Zambezia, and the answer was the approach was to massively work with the extension services from World Vision (the host partner of the project) and use of the contact/promoters in the community to pass as much as possible the information to the farmers in the community. Also it was reminded that Zambézia, and in general Center of Mozambique is a case specific where the prevalence of conflicts between people from the same community is always more likely to occur. However, the question was recognized as valid, and the new dissemination project will work with 800 technicians from the public services.

The second presentation of the Day 1 was on “The Decentralized Vine Multiplication experience to date in Malawi”. In Malawi, the program has been conducted by CIP and five other partners, and the focus is on the de-centralized vine multiplication using rapid multiplication.

Comments and discussion:

Dr Jan Low (CIP): the question was on how the vines reach to the beneficiaries, or who normally are the customers of the de-centralized vine multipliers, and the answer was most of the vines are purchased by the NGOs and they are the vectors to the final beneficiaries.

Claudia Fidalgo (HKI): the question was what is the percentage of vitamin A deficiency in Malawi, and what is the approach used in relation to the nutrition component in the project, and the answer was VAD in Malawi is about 59%, and actually most of the partners in the project are working with vulnerable groups such as children with less than 5 years, pregnant women, and also people living with HIV/AIDS.

The third and last presentation of the Day 1 was on “The De-centralized vine Multiplication experience in Mozambique”, and the focus was on the lessons, pros and cons from the implementation of the modified de-centralized vine multiplication system that has been conducted in Mozambique since 2009/10. The emphasis here was on the use of conventional multiplication for double purpose (to produce vines and roots) as opposed to a system focused on the production of vines

only and the introduction of trainings to the DVM prior to receive the vines to plant in their multiplication plots. Another important aspect was on the lessons from the involvement of local leaders and women in the system.

Comments and discussion:

Most of the comments were on the sustainability of the system, and how both the DVMs and beneficiaries are chosen to part of the system.

Eric Schmidt (World Vision): The question was what are the measures that have been taken to guarantee the sustainability of the system, as the approach is to use subsidized vouchers for the beneficiaries to exchange with planting material, and the answer was that this is the initial and experimental stage of project, and the objective now is to buy the system, make the system firstly to work, and at the second phase there will be a partial sharing of the cost of the vines with the beneficiaries.

There were different contributions in relation to the criteria to select the DVMs, and general most of the criteria are based on the principles to find someone who really wants to embark on the system and have the same conditions to grow sweetpotato. At the end the selection of the DVMs is very participative and democratic, as both the local agriculture services and local leaders are directly involved in the selection process from the very beginning.

The Day 1 ended with an evaluation chaired by Albertina Alage. In summary, all participants were very satisfied by the observations and discussions made in the field in the morning, and lately in the conference room.

Day 2

The second day of the platform meeting started with the demonstration on the triple S system (Storage in Sand and Sprouting) (Figure 5), which is a vine multiplication method based on the sprouting of selected storage roots. The demonstration was conducted by Maria Andrade, and it was demonstrated the type of roots to be used, and the way they are stored in sand in appropriate containers for conservation before planted in seed bed for sprouting. During the demonstration, the participants were also invited to select the appropriate roots to undergo storage in sand and to comment on the method.

All the participants were unanimous in saying that the method is user friendly and easy to demonstrate and use in the communities. However, the concern was on the use of newspaper and plastic container in the remote areas where these materials are difficult to find, and the suggestion was to continue with the research on the method in order to involve other local material such as very dry leaves instead of newspaper, and local containers to replace the somehow expensive plastic containers.



Figure 5: Participants of the meeting during the demonstration of the triple S method

After the triple S demonstration, the participants were invited to return to the meeting room to continue with the presentations on the experiences on multiplication and dissemination of sweetpotato planting material in South Africa and Zambia.

Accordingly, the first presentation of the Day 2 was on “The Formal Seed System in South Africa: Costs and Benefits” by Sidweell Tidja (Figure 6). In general he presented all scenarios from the formal and informal sweetpotato production in SA. Differently from other countries in the region, the formal sector produces more than 60% of sweetpotato production in SA, and as consequence, the multiplication of planting material are mainly based on the formal system. The vine multipliers usually buy the primary material from a certified institution who mainly multiply the material virus free in the nurseries

However, there are some small commercial vine multipliers who are not certified, and usually supply planting material to a more informal sector in the sub-tropical areas such as the provinces of Limpopo and Kwazulo Natal.

Figure 6: Participants discussing the pros and cons the seed system in South Africa

Comments and discussion:

Comments by Dr Jan Low on the importance of have certified multipliers due to the quality of the material.

However, very difficult approach to follow in some of the countries because is not cost effective, particularly for roots and tuber crops. Thus, a certified system can



drive most of the multipliers out of the system because of the costs. Most of the comments on the presentation were in relation to the cost of the system and how do we balance the need to have high quality material being cost effective. Once again, the experience of Mozambique was mentioned as one to try in SA, mainly for the informal sector without putting in risk business nature of the system.

Another important question was how they control the quality of the material after dissemination, and the answer was they advise the producers to change the material every 3 years, something unique in the region.

Another important challenge in SA is to have most of the formal sector producing orange fleshed sweetpotatoes, as the white ones are the most produced in the country, in particular in Kwazulu Natal and Limpopo. However, considerable part of the exported sweetpotato is orange.

The last part of the discussion was reserved to the explanation on how they do to clean the vines, and here Maria Andrade helped to answer as the approach is the same as in Mozambique, where most of the vines are cleaned in the tissue culture lab, use of the thermotherapy, and use of controlled multiplications in the green houses.

The second presentation of the Day 2 was on the "Integrating Orange in Zambia & Investment in Improved Tissue Culture" by Martin Chiona. According to the presentation, Zambia is a particular case, where the sweetpotato program is at the inception, and there are a lot of challenges to face and overcome in order to place the country as others in the region. However, the effort to boost the system, and in particular the seed system has started with the establishment of different initiatives under the SASHA/SPHI. Actually, there are 3 sweet potato varieties under multiplication and dissemination, one of them a local called *Chingova*, which is very similar to *Gloria* in terms of taste.

Comments and discussion:

Apart from the questions related to the organization of the agriculture and nutrition sectors in Zambia to integrate a country wide sweetpotato program, there were no more comments and questions, as the presentation itself gave the historical pattern of the development of sweetpotatoes in Zambia. After this presentation, the participants were invited to the health break that was followed by the ceremony of launching of the new sweetpotato manual.

The launch of New Sweetpotato Production Manual and tasting of the New 15 pre-released varieties

The sweetpotato production manual was launched with the presence of all the participants of the 3rd sweetpotato support platform meeting and the local media (TVM, STV, MIRAMAR, and Radio Mozambique). Parallel to the ceremony of launching of the manual, the participants were presented the new 15 pre-released varieties for tasting. (Figure 4). According to the participants, all varieties were very good in terms of dry matter content, but slightly different in terms of sweetness, which is in fact good as sweetpotato consumer usually have different demand in terms of sweetness.



Figure 7. View of the session dedicated to the palatability test of the 15 new released varieties

New segment of presentations at the conference room

Right after the launching of the manual and palatability test, the participants were invited to the conference room to the last section of the presentations. The first presentation was on the “New project on Multiplication and Dissemination of the 15 varieties to 60 districts of Maputo, Gaza, Sofala, Manica, and Zambezia” to benefit 600,000 households up June 2013. It was a very good summary of the objectives and targets of the project. According to the project, each family will receive 400 cuttings, which is enough to establish an initial area of 120 m². For that, in each district there will be established at least 3 DVMs. The project has also a strong nutritional and agro-processing component.

Comments and discussion:

The first question was from Eric (World Vision), and was on how the project will finance the use of the irrigation systems for the DVM in the project, and the answer was each DVM will be case specific, and the irrigations systems will be established according to the need and capacity of each of the DVMs.

The second question was from Albertina Alage (Extension Services), who firstly welcome the project, and asked about the indicators of the project and the M&E system of the project. The answer was that most of the indicators of the project are based on the number of beneficiaries reached because of the emergence nature of the project. Furthermore, there will be indicators related to the diversification of the diets, agro-processing and consumption, and even the establishment of the DVM concept.

The third question was from Dr Carvalho Ecole (IIAM), and he was worried about the marketing of sweetpotato as single crop while in reality most of consumers usually use the crop with vegetables. Dr Jan Low mentioned that there is always willing to incorporate sweetpotatoes in programs with crop diversification, but everything depends on the availability of the funds.

After a short discussion on the nutrition component of the project, the discussion on the project ended with an appeal made by Mr. Jorge Tembe from Lutheran World Foundation that the project to also contemplate farmers from Tete province, in particular the district of Tsangano which is the most important in terms of sweetpotato production in Tete.

The last presentation of the meeting was on the “The Economics of Golden Bread & the Challenges of Building a Value Chain” by Dr Jan Low. The objective was to share with the participants the approach followed to reach at the feasible golden bread of 38% pure and 62% wheat flour. According to the presentation, the golden bread to be economic feasible, the minimum ratio of the price of wheat and price of sweetpotato must be 1.5.

Comments and discussion:

During the presentation, the participants had the opportunity to eat the golden bread, and most of them did evaluate positively the bread. Great part of the discussion was on the characteristics of the bread, and the appeal was that for the bread is better to use those varieties that are typically deep orange such as Sumaia and Erica. One of the questions was on the capacity to continuously supply the puree, the presenter recognized that one of the challenges we have now is to establish a sustainable supply chain based on puree.

The last question was from Mr. Jorge Tembe (LWF), and the preoccupation was on the low adoption of the bread and other processed products as they have been

promoted for more than 10 years, and the answer was that we are doing our best to promote this new technologies, and the last 4 years the focus was on to bring new varieties, and now with the advent of the new varieties the promotion will continue. According to Dr Jan Low, another approach will be to slowly start to include the industry in the processing of the products as in Malawi and Ruanda, in order to decentralize the production and promotion to the local processing industry and bakeries.

The demonstration of golden bread and juice making and closing remarks

The last activities of the meeting were the demonstrations on how to make golden at Aliança Bakery and Juice at CIP kitchen/lab (Figure 8). However, only the latter took place effectively. The participants had the chance to see how make sweetpotato juice, and most of them were very surprised with the simplicity of the process. The demonstration ended by the testing of the juice served to all participants.



Figure 8: Participants during the demonstration on the processing of sweetpotato juice

The very last activity of the Day 2 was the closing ceremony conducted by Dr. Ecole of IIAM. In general, he congratulated all participants for the very important experiences brought to share. All participants representing the organizations and countries in the meeting were unanimous in saying that this was definitely a very productive meeting, as all objectives were fully accomplished.

Evaluation of the meeting

During the lunch time on Day 2, the participants were invited to evaluate this 3rd Sweetpotato Support Platform Meeting. The evaluation was concentrated on getting feedback on the expectations of the participants, the quality of the meeting, organization and logistics. The participants were also invited to express their opinions in order to help improve the organization of the next meetings.

According to the results of the 12 participants that filled the evaluation form, the meeting did match most (9) and completely (3) their expectations. Most of the participants mentioned that the quality of the meeting was very good (7) and good (5). In general, the organization and logistics were rated as good (10) and very good (2) by the participants.

List 3 parts of the meeting that were very useful (in bracket number of participants mentioned)

1. De-centralized vine experience and field visit (10)
2. Triple S demonstration and demonstration (5)
3. The economics of golden bread (5)

List 3 parts of the meeting that were least useful (in bracket number of participants mentioned). Apart from the two aspects listed below, most of the participants (10) did not mention any significant part of the meeting that was not useful.

1. More time for discussion (1)
2. The language barrier (1)

Suggestion of 3 areas of improvement

1. Consider having an interpreter for the meeting
2. Time keeping in the presentations or more time for the presentations
3. Invite more SSA countries and private sector to attend the meeting

The list of the participants of the 3rd Sweetpotato Support Platform Meeting for Southern Africa, Maputo is presented in Table 2 ahead.

Table 2: List of the participants of the 3rd Sweetpotato Support Platform Meeting for Southern Africa, Maputo, 23-24 June 2011

No	Name	Institution	Role in the platform	Telephone	Cell	E-mail
1	Anabela Manhiça	IIAM – DFDTT	Facilitator	21660219	828811940	bellamanhica@yahoo.co.uk
2	Jan Low	CIP – Nbo	Advisor	+254733911010		j.low@cgiar.org
3	Sidwell Tjale	ARC – YOPI	Technician	+27128419611	+27824215949	stjale@arc.agric.za
4	Sandra Mussa	Agro processor	Future Processor of Juice	824817560		-
5	Gertrudes Elias	Agro processor		827013000		-
6	Bernardino Munhaua	CIP – Maputo	CIP Staff	824607600		bazamunhaua@yahoo.com.br
7	Florêncio M-áquina	ADRA - Zambézia	Coordinator Ags	827174400		fmaquina@gmail.com
8	Carvalho C. Ecole	DARN – IIAM	Chefe Dpt.	21460190	828049580	ececole@gmail.com
9	José Ricardo	IIAM		21461610	823229880	j.madija@yahoo.com.br
10	Martin Chiona	ZARI	MEMBER	+260977125692		martinchiona@yahoo.com
11	Eric Schmidt	VISÃO MUNDIAL	MEMBER	823066731		eric_schmidt@wvi.org
12	João Alberto Mutemba	UNAC – MANHI	FORMASOR	828218180		-
13	Abdul Naico	CIP	MEMBER	21461610	829849584	anaico@yahoo.com.br
14	Maria Andrade	CIP	REP	21461610	823065460	mandrade@cgiar.org
15	Amélia Ruco	CIP	Admin. Assistant	21461610	823958840	a.ruco@cgiar.org
16	Albertina Alage	DE Agrária				albertinaalage@yahoo.co.uk
17	Joaquim Alexandre Cuane	DE Agrária				
18	Claudia Fidalgo	Helen Keller International	NGO Representative		258 826020468	claudiamqf@hotmail.com

19	Raymond Chimsale			265 01 420 284	265 01 888 504 406	rchimsale@africa-online.net
20	Paciência Banze	EAU - IIAM	Chefe da Estação	823901210		pacbanze@yahoo.com
22	Manuel Amane	IIAM - DARN	Director Técnico	21460190	823038760	mivamane@gmail.com
23	Anina Manganhela	DE-MINAG	Agro-Economist	827633080		amanganhele@yahoo.com.uk
24	Antonieta Nhamusso	UGP - IIAM	Colaborator	8241805330		anhamusso@gmail.com
25	Bernardino Munhaua	CIP - Maputo		824607600		bazamunhaua@yahoo.com.br
26	Albino Saveca	HKI	Extensionista	820020100	82305438	ninosaveca@yahoo.com.br
27	Fernandes Jaime Jorge	CIP - Umbeluzi		820160380		
28	Julieta Cavele	Ass. Manguiza	DVM	827316110		
29	Xadrique Valente	Private	DVM	823008060		
30	Levi Barros	EMBRAPA		827853224		Levi@enpat.embrapa.br
31	José L. Bellinis	EMBRAPA		842673132		José.bellini@embrapa.br
32	Castigo Tovela	Private	DVM	847731916		
33	Jorge Mabay Tembe	LWF		823290310		

